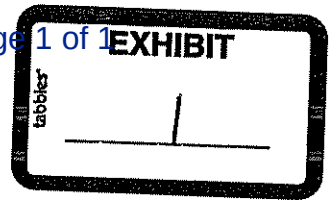

Protective effect of Sargassum polycystum (Brown alga) **against acetaminophen-induced lipid peroxidation in rats**

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Abstract:
Lipid peroxidation is believed to play an important role in the pathogenesis of several diseases, such as **cancer**, diabetic mellitus and liver injury. Aqueous and ethanol extracts of Sargassum polycystum C. Agardh (Phaeophyta) were screened for their protective effects against acetaminophen (ACP; Paracetamol)-induced lipid peroxidation in rats. A single dose of acetaminophen significantly elevated the levels of lipid peroxides (LPO) with decreased levels of free radical scavenger enzymes (SOD, CAT, GSH, GPx, GST) in liver homogenate. The oral pretreatment of rats with ethanol and aqueous extracts of Sargassum polycystum C. Agardh (100 mg, 200 mg/kg body wt/day respectively, for a period of 15 days) significantly reduced the acetaminophen-induced oxidative stress in rats. The animals treated with the ethanol and aqueous extracts alone did not show any toxicity on liver tissue. This observation shows that the seaweed crude extracts probably acted to protect against acetaminophen-induced lipid peroxidation through their free radical scavenging property. Copyright © 2005 John Wiley & Sons, Ltd.